SENATE BILL NO. 659

101ST GENERAL ASSEMBLY

INTRODUCED BY SENATOR CIERPIOT.

3952S.01I   ADRIANE D. CROUSE, Secretary

AN ACT

To repeal section 170.018, RSMo, and to enact in lieu thereof one new section relating to computer science courses.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section A. Section 170.018, RSMo, is repealed and one new
2 section enacted in lieu thereof, to be known as section 170.018,
3 to read as follows:

170.018. 1. (1) For purposes of this section,
2 "computer science course" means a course in which students
3 study computers and algorithmic processes, including their
4 principles, hardware and software designs, implementation,
5 and impact on society. **The term shall include, but not be**
6 **limited to, a stand-alone course at any elementary, middle,**
7 **or high school or a course at any elementary or middle**
8 **school that embeds computer science content within other**
9 **subjects.**
10   (2) The department of elementary and secondary
11 education shall, before July 1, 2019, develop a high school
12 graduation policy that allows a student to fulfill one unit
13 of academic credit with a district-approved computer science
14 course meeting the standards of subsection 2 of this section
15 for any mathematics, science, or practical arts unit
16 required for high school graduation. The policy shall
17 require that all students have either taken all courses that
18 require end-of-course examinations for math and science or

**EXPLANATION-Matter enclosed in bold-faced brackets [thus] in this bill is not enacted
and is intended to be omitted in the law.**

19 are on track to take all courses that require end-of-course
20 examinations for math and science under the Missouri school
21 improvement program in order to receive credit toward high
22 school graduation under this subsection.
23   (3) A school district shall communicate to students
24 electing to use a computer science course for a mathematics
25 unit that some institutions of higher education may require
26 four units of academic credit in mathematics for college
27 admission. The parent, guardian, or legal custodian of each
28 student who chooses to take a computer science course to
29 fulfill a unit of academic credit in mathematics shall sign
30 and submit to the school district a document containing a
31 statement acknowledging that taking a computer science
32 course to fulfill a unit of academic credit in mathematics
33 may have an adverse effect on college admission decisions.
34   (4) The department of elementary and secondary
35 education and the department of higher education and
36 workforce development shall cooperate in developing and
37 implementing academic requirements for computer science
38 courses offered in any grade or grades not lower than the
39 ninth nor higher than the twelfth grade.
40   2. (1) The department of elementary and secondary
41 education shall convene a work group to develop and
42 recommend rigorous academic performance standards relating
43 to computer science for students in kindergarten and in each
44 grade not higher than the twelfth grade. The work group
45 shall include, but not be limited to, educators providing
46 instruction in kindergarten or in any grade not higher than
47 the twelfth grade and representatives from the department of
48 elementary and secondary education, the department of higher
49 education and workforce development, business and industry,
50 and institutions of higher education. The department of

51 elementary and secondary education shall develop written

52 curriculum frameworks relating to computer science that may

53 be used by school districts. The requirements of section

54 160.514 shall not apply to this section.

55   (2) The state board of education shall adopt and

56 implement academic performance standards relating to

57 computer science beginning in the 2019-20 school year.

58   3. Before July 1, 2019, the department of elementary

59 and secondary education shall develop a procedure by which

60 any teacher who holds a certificate of license to teach

61 under section 168.021 and demonstrates sufficient content

62 knowledge of computer science shall receive a special

63 endorsement on [his or her] **the teacher's** license signifying

64 [his or her] **the teacher's** specialized knowledge in computer

65 science.

66   4. (1) For purposes of this subsection, "eligible

67 entity" means:

68   (a) A local educational agency, or a consortium of

69 local educational agencies, in the state, including charter

70 schools that have declared themselves local educational

71 agencies;

72   (b) An institution of higher education in the state; or

73   (c) A nonprofit or private provider of nationally

74 recognized and high-quality computer science professional

75 development, as determined by the department of elementary

76 and secondary education.

77   (2) There is hereby created in the state treasury the

78 "Computer Science Education Fund". The fund shall consist

79 of all moneys that may be appropriated to it by the general

80 assembly and any gifts, contributions, grants, or bequests

81 received from private or other sources for the purpose of

82 providing teacher professional development programs relating

83 to computer science. The state treasurer shall be custodian

84 of the fund. In accordance with sections 30.170 and 30.180,

85 the state treasurer may approve disbursements. The fund

86 shall be a dedicated fund and, upon appropriation, moneys in

87 the fund shall be used solely for the administration of

88 grants to eligible entities as described in this section.

89 Notwithstanding the provisions of section 33.080 to the

90 contrary, any moneys remaining in the fund at the end of the

91 biennium shall not revert to the credit of the general

92 revenue fund. The state treasurer shall invest moneys in

93 the fund in the same manner as other funds are invested.

94 Any interest and moneys earned on such investments shall be

95 credited to the fund.

96   (3) The state board of education shall award grants

97 from the computer science education fund to eligible

98 entities for the purpose of providing teacher professional

99 development programs relating to computer science. An

100 eligible entity wishing to receive such a grant shall submit

101 an application to the department of elementary and secondary

102 education addressing how the entity plans to:

103   (a) Reach new and existing teachers with little

104 computer science background;

105   (b) Use effective practices for professional

106 development;

107   (c) Focus the training on the conceptual foundations

108 of computer science;

109   (d) Reach and support historically underrepresented

110 students in computer science;

111   (e) Provide teachers with concrete experience with

112 hands-on, inquiry-based practices; and

113   (f) Accommodate the particular needs of students and

114 teachers in each district and school.

115   5. (1) For all school years beginning on or after
116 July 1, 2023, each public high school and charter high
117 school shall offer at least one computer science course in
118 an in-person setting or as a virtual or distance course
119 option.
120   (2) Any computer science course or instruction offered
121 under this subsection shall:
122   (a) Be of high quality as defined by the state board
123 of education;
124   (b) Meet or exceed the computer science performance
125 standards developed and adopted by the department of
126 elementary and secondary education under this section; and
127   (c) For any computer science course offered by a
128 public high school or charter high school, be offered in
129 such school's course catalog.
130   (3) On or before June thirtieth of each school year,
131 each school district shall submit to the department of
132 elementary and secondary education a report for the current
133 school year which shall include, but not be limited to:
134   (a) The names and course codes of computer science
135 courses offered in each school in the district with a course
136 description and which computer science performance standards
137 are covered, to the extent such information is available;
138   (b) The number and percentage of students who enrolled
139 in each computer science course, listed by the categories in
140 subparagraphs a. to f. of this paragraph. If a category
141 contains one to five students or contains a quantity of
142 students that would allow the quantity of another category
143 that contains five or fewer to be deduced, the number shall
144 be replaced with a symbol:
145   a. Sex;
146   b. Race and ethnicity;

147   c.   Special education status including, but not limited

148   to, students receiving services under the federal

149   Individuals with Disabilities Education Act (IDEA) (20

150   U.S.C. Section 1400 et seq., as amended) or Section 504 of

151   the federal Rehabilitation Act of 1973 (29 U.S.C. Section

152   794), as amended;

153   d.   English language learner status;

154   e.   Eligibility for free or reduced price meals; and

155   f.   Grade level; and

156   (c)   The number of computer science instructors at each

157   school, listed by the following categories:

158   a.   Applicable certifications;

159   b.   Sex;

160   c.   Race and ethnicity; and

161   d.   Highest academic degree.

162   (4)   On or before June thirtieth of each school year,

163   the department of elementary and secondary education shall

164   post the following on the department's website:

165   (a)   Data received under paragraphs (a) and (b) of

166   subdivision (3) of this subsection, disaggregated by school

167   and aggregated statewide; and

168   (b)   Data received under paragraph (c) of subdivision

169   (3) of this subsection, aggregated statewide.

170   (5)   On or before June thirtieth of each school year,

171   the department of elementary and secondary education shall

172   publish a list of computer science course codes and names

173   with a course description and an indication of which courses

174   meet or exceed the department of elementary and secondary

175   education's computer science performance standards.

176   6.   The department of elementary and secondary

177   education shall appoint a computer science supervisor.   The

178 **computer science supervisor shall be responsible for**
179 **implementing the provisions of this section.**
180   **7. For all school years beginning on or after July 1,**
181 **2023, a computer science course successfully completed and**
182 **counted toward state graduation requirements shall be**
183 **equivalent to one science course or one practical arts**
184 **credit for the purpose of satisfying any admission**
185 **requirements of any public institution of higher education**
186 **in this state.**
187   **8.** The department of elementary and secondary
188 education shall promulgate rules to implement the provisions
189 of this section. Any rule or portion of a rule, as that
190 term is defined in section 536.010, that is created under
191 the authority delegated in this section shall become
192 effective only if it complies with and is subject to all of
193 the provisions of chapter 536 and, if applicable, section
194 536.028. This section and chapter 536 are nonseverable, and
195 if any of the powers vested with the general assembly
196 pursuant to chapter 536 to review, to delay the effective
197 date, or to disapprove and annul a rule are subsequently
198 held unconstitutional, then the grant of rulemaking
199 authority and any rule proposed or adopted after December
200 18, 2018, shall be invalid and void.

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